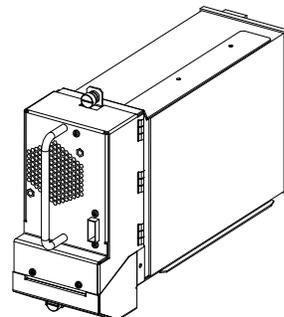


Add-On/Spare Tape Drive Instructions

This document describes how to add a new tape drive assembly or remove and replace an existing tape drive assembly in an Overland Storage NEO E-Series library. When adding a new drive, configuring the cabling is also addressed.

WARNING: To reduce the risk of electric shock or damage to equipment, always remove any power cords while working with the unit.

AVERTISSEMENT: Pour réduire le risque de choc électrique ou endommagement de l'équipement, retirez toujours les cordons électriques en travaillant avec l'appareil.



CAUTION: When replacing a tape drive assembly, verify that the drive type (SCSI, FC, or SAS) of the new assembly is the same as the one it replaces. Failure to match the assembly to the drive interface will result in damage to the drive connector pins.

CAUTION: While working with the unit, observe standard Electrostatic Discharge (ESD) precautions to prevent damage to micro-circuitry or static-sensitive devices.

Register Your Add-On Drive Assembly

NOTE: If you are only replacing an existing drive, skip to the next section, "Adding or Replacing a Tape Drive."

When **adding** an additional tape drive to your library, you must first register it to activate the warranty. Technical and warranty support are **not available** until this is done:

1. Go to the **Overland Storage** website (<http://www.overlandstorage.com/>).
2. Select **Service & Support > My Products**.
3. At the [Site Login](#), enter your **e-mail address** and **password**, and click **GO**.
4. Click the **Manage Products** button.
5. From the **Product Selector** drop-down list, select the specific E-Series library in which you are installing the tape drive.
6. Click **Add a Component**.
7. Enter **serial number** of the new tape drive.
8. Click **Save & Exit**.

IMPORTANT: Your warranty certificate will be emailed to you. Follow the instructions included in the email to complete the registration process.



Preparing the Library

Update Firmware First

CAUTION: Your NEO E-series library firmware must be upgraded to the latest version to support the current drives.

NOTE: You must have Internet access to download the file.

1. Launch WebTLC® and click **Functions**.
2. Locate the **Library Flash Operation**.
3. From the Flash Operation drop-down list:
 - For NEO 2000e/4000e, choose **Flash Library from Remote File**.
 - For NEO 8000e, choose **Flash Library from Local File**.
4. Click **Start the Flash**.
5. Select the latest version of the firmware for your model, and then click **Confirm**.

The library reboots after the firmware is installed.

Login to the Web TLC

Check to prevent other users from initiating any "Level 2" operations with the Library for the duration of your session.

Check to disable frames.

Enter a Password:

Login

Library Flash Operation

Flash Operation: Flash Library from Remote File

Start the Flash

Adding or Replacing a Tape Drive

Before installing the new assembly, you must remove either the drive bay cover plate where the new assembly goes or the old drive assembly that is being replaced. Use the appropriate process:

- “Removing a Drive Bay Cover Plate” (add-on drive)
- “Removing an Existing Drive” (replacement drive)

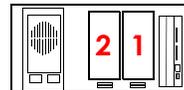
Removing a Drive Bay Cover Plate

IMPORTANT: New drives must be installed in sequence with the other drives. Refer to the drive bay numbering graphic.

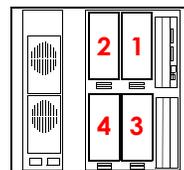
1. At the appropriate drive bay cover plate, remove and retain both **screws**.
Store the cover plate and screws for future use.
2. Proceed to “Installing the New Drive Assembly.”

Drive Bay Numbering

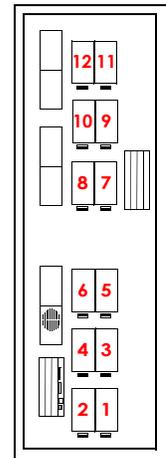
NEO 2000e



NEO 4000e



NEO 8000e

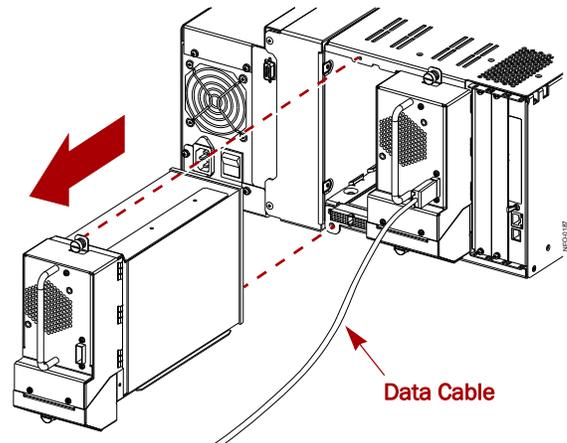


Removing an Existing Drive

1. If necessary, unload any **cartridge** that is still in the drive (using either the backup software or the GUI).
2. Prepare the **library** for removal of the drive:
 - For a **SCSI** library, **power down** the library and remove the power cords. For the NEO 8000e, also turn off the circuit breakers.
 - For an **FC or SAS** library remaining **ON**, deactivate the drive by selecting **Menu > Maintenance > Replace Drive > Deactivate Drive *n*** (where *n* is the drive number) from the front panel.
3. Remove the **data cable** (and, if applicable, the SCSI terminator) from the drive housing.
4. Loosen the captive **thumbscrews** at the top and bottom of the drive assembly.
5. Fully supporting the assembly as it is removed, pull the handle to remove the **drive assembly**.

NOTE: Some effort may be required to overcome the initial resistance of unplugging the module from the receiver.

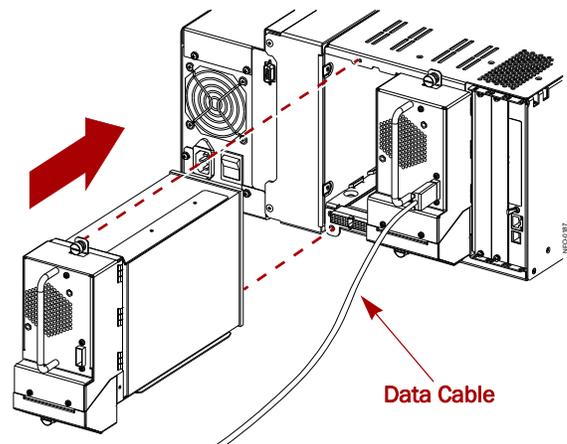
6. Place the assembly **on its side** on a secure surface so not be bend the tabs.



Installing the New Drive Assembly

CAUTION: When inserting the new drive assembly, push evenly on both the handle and the bottom section until it is seated. To prevent connector pin damage, do not lift the drive by the handle while pushing it into the bay.

1. While fully supporting the **assembly**, line it up with the open bay and slowly push it into the bay until it seats firmly against the backplane.
2. Tighten the two captive **thumbscrews**.
3. If you are **adding** a new drive assembly to your library, continue with [“New Drive Assembly Cabling.”](#)
4. Reconnect the **data cable** (and, if applicable, the SCSI terminator) to the drive housing connectors.
5. Continue with [“Activate New Drive.”](#)



New Drive Assembly Cabling

The NEO E-series libraries use an ADI interface and direct-connect cabling system with the connections located on the drive assembly housing.

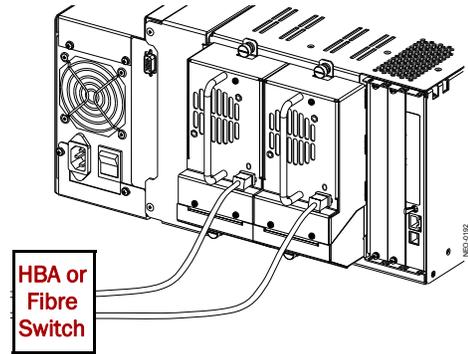
When **adding a new drive to an empty drive bay**, the NEO library cabling must also be updated. The following shows some common cabling configurations. Refer to your user guide for additional options and more information.



Fibre Channel Cabling

When you add a FC drive assembly to a native FC library configuration, a new Fibre connection needs to be added that connects directly to the FC socket on the rear of the drive assembly.

The example shown here has the Fibre Channel drives connecting directly to an FC switch or Host Bus Adapter (HBA).

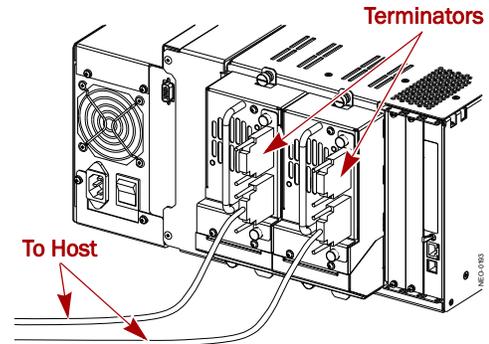


SCSI Cabling



IMPORTANT: Drives should always be on separate SCSI buses to maximize efficiency.

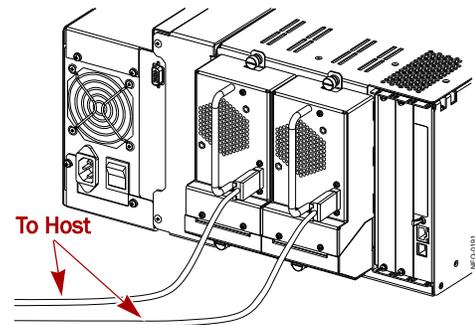
Hook up the new drive assembly using the direct-connect SCSI connectors on the rear of the drive assembly. Follow standard SCSI wiring protocols. The drive should also have a SCSI terminator.



SAS Cabling

When you add a SAS drive to an existing SAS library, a new SAS connection or cable needs to be added that connects directly to the SAS socket on the rear of the drive assembly.

The SAS connection can be part of a multi-wire cable or a separate cable.

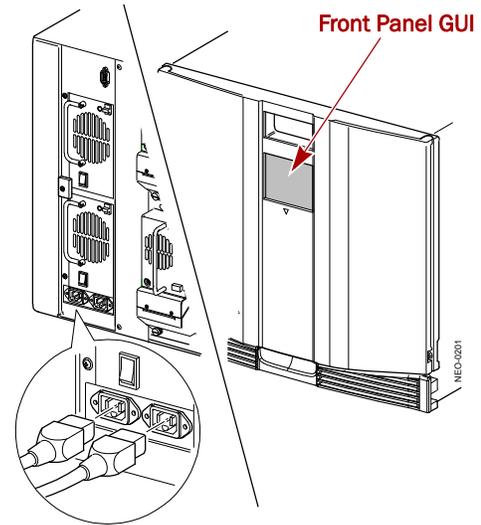


Activate New Drive

Once installed and cabling updates made, the new drive needs to be activated for the library to recognize it.

- If the library was **OFF** during this procedure, replace the power cords (also turn on the NEO 8000 circuit breakers) and **power ON** the library. The drive is activated automatically during the initialization of the library.
- If the library was **ON** during this procedure:
 - If Auto Activate is **ON**, the drive was automatically activated when it was inserted.
 - If Auto Activate is **OFF**, at the front panel GUI, press **Menu > Maintenance > Replace Drive > Activate Drive *n*** (where *n* is the drive number).

NOTE: The LED on the rear of the new drive flashes green during initialization and then turns solid green when the drive is fully initialized. If you get an amber light, there is a problem with the drive. Contact Overland Storage Technical Support.

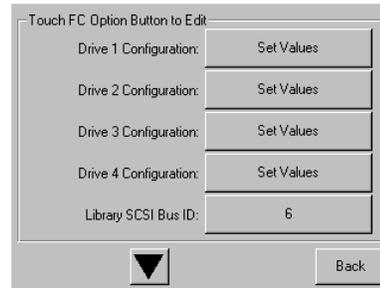


Firmware Configuration Requirements

Configuring Fibre Channel Drives

The **default configuration values** for fibre channel drives work for most environments, but can be changed if needed:

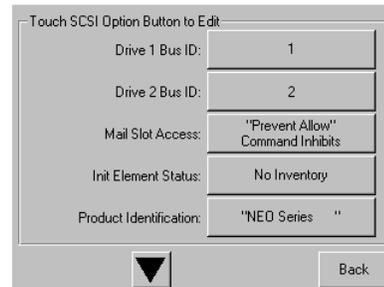
1. At the front panel GUI, press **Menu > SCSI/FC (Edit Options)**.
2. Locate the drive that has been installed or changed and press **Set Values**.
3. Change **values** as necessary for the FC drive. Move between the two edit screens using the ▼ and ▲ buttons.



Configuring SCSI Drives

Each SCSI drive assembly requires a unique SCSI ID.

1. At the front panel GUI, press **Menu > SCSI/FC (Edit Options)**.
2. Locate the drive that has just been installed and verify the SCSI ID displayed on the button to the right of the **Drive n Bus ID** label (where *n* is the drive number).
3. If the **number** needs to be changed, touch the button to display the Keypad screen.
4. Enter a new number for the SCSI ID and press **Save**.



Return Old Drive to Overland

For return shipping details of a replaced drive, go to:

<http://docs.overlandstorage.com/return-instructions>

1. Place the **old drive** in the anti-static bag and put it in the replacement part's box.
2. Use a return merchandise authorization (RMA) number to return the part to **Overland Storage**.

